

This listing of claims will replace all prior versions and listing of claims in the application.

LISTING OF CLAIMS:

Claim 1. (Currently Amended): A process for the continuous preparation of thermoplastic polyurethane elastomers in which

one or more polyisocyanates (A) and

a mixture (B), with Zerewitinoff-active hydrogen atoms, comprising

B1) 1 to 85 equivalent-%, with respect to the isocyanate groups in (A), of one or more compounds with on average at least 1.8 Zerewitinoff-active hydrogen atoms and an average molecular weight \overline{M}_n of 450 to 10000,

B2) 15 to 99 equivalent-% (with respect to the isocyanate groups in (A)) of one or more chain lengthening agents with an average at least 1.8 Zerewitinoff-active hydrogen atoms and a molecular weight of 60 to 400, and

0-20 wt.%, with respect to the total amount of TPU, of further auxiliary agents and additives (C)

Cl
ant
are homogeneously premixed continuously introduced and reacted in a reactor static mixer, said thermoplastic polyurethane elastomer being formed within said static mixer, and within a period of at most said process having a residence time within said static mixer of less than 5 seconds,

wherein the difference between the temperatures of components (A) and (B), before entering the reactor said static mixer, is \leq less than 20°C.

Claim 2. (Currently Amended): ~~A~~ The process according to of Claim 1, in which wherein the temperature of components (A) and (B) before entrance to the reactor is between 60°C and 220°C.

Claim 3. (Cancelled).

Claim 4. (Currently Amended): ~~A~~ The process according to of Claim 1 3,
~~characterised in that wherein~~ the static mixer has a length to diameter ratio in the
range from 8:1 to 16:1.

Claim 5. (Cancelled).

Claim 6. (Cancelled).

Claim 7. (Currently Amended): Thermoplastic polyurethane elastomers
prepared according to the process ~~in accordance with~~ of Claim 1.

Claim 8. (Cancelled).

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cancel

Claim 9. (Cancelled).

Claim 10. (New): The process of Claim 1 wherein said residence time is less
than 2.5 seconds.

Claim 11. (New): The process of Claim 1 wherein said static mixer has a
length to diameter ratio of 10:1 to 14:1.
